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PATENT
Attorney Docket No. 0147-0211P

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS:	ROSENTHAL, A. et al.	CONF #:	
SERIAL No.:	09/647,377	GROUP:	1632
FILED:	September 27, 2000	EXAMINER:	PRIEBE,S.

FOR: NUCLEIC ACID MOLECULES ENCODING PROTEINS WHICH INFLUENCE BONE DEVELOPMENT

RESPONSE TO RESTRICTION REQUIREMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

June 3, 2002

Sir:

In response to the Office Action of May 1, 2002, the following remarks are submitted in connection with the above-indicated application.

REMARKS

The Examiner has required restriction to one of the following groups under 35 U.S.C. § 121 and 35 U.S.C. §372:

Group I: Claims 1-8, 12, 13, 20, 21, 23-26, drawn to a nucleic acid molecule comprising nucleic acid encoding SEQ ID NO: 9, nucleic acid of SEQ ID NO: 8, or nucleic acid encoding a protein which hybridizes thereto, and the first

recited method of using same, which is to produce a protein;

Group II: Claims 1-8, 12, 13, 20, 21, 23-26, drawn to a nucleic acid encoding SEQ ID NO: 14, nucleic acid of SEQ ID NO: 13, or nucleic acid encoding a protein which hybridizes thereto, and the first recited method of using same, which is to produce a protein;

Group III: Claims 9, 12, 13, 22, drawn to the protein of SEQ ID NO: 9;

Group IV: Claims 9, 12, 13, 22, drawn to the protein of SEQ ID NO: 14;

Group V: Claim 10, drawn to an antibody which binds to the protein of SEQ ID NO: 9;

Group VI: Claim 10, drawn to an antibody which binds to the protein of SEQ ID NO: 14;

Group VII: Claim 11, drawn to a nucleic acid of at least 15 nucleotides which hybridizes to a nucleic acid molecule of Group I;

Group VIII: Claim 11, drawn to a nucleic acid of at least 15 nucleotides which hybridizes to a nucleic acid molecule of Group II;

Group IX: Claims 14, 27, 28, drawn to a method of making a transgenic, non-human animal produced from an embryonic cell or egg cell transformed with a nucleic acid molecule of Group I, a second method of using the nucleic acid molecules of Group I;

Group X: Claims 14, 27, 28, drawn to a method of making a transgenic, non-human animal produced from an embryonic cell or egg cell transformed with a nucleic acid molecule of Group II, a second method of using the nucleic acid molecules of Group II;

Group XI: Claims 15, 18, 19, drawn to a transgenic, non-human animal transformed with a nucleic acid molecule of Group I, products made by a third method of using the nucleic acid molecules of Group I;

Group XII: Claims 15, 18, 19, drawn to a transgenic, non-human animal transformed with a nucleic acid molecule of Group II, products made by a third method of using the nucleic acid molecules of Group II;

Group XIII: Claims 16-19, drawn to a transgenic, non-human animal whose cells express lower levels of the protein of SEQ ID NO: 9 than in a corresponding wild type animal;

Group XIV: Claims 16-19, drawn to a transgenic, non-human animal whose cells express lower levels of the protein of SEQ ID NO: 14 than in a corresponding wild type animal;

This requirement is respectfully traversed. Reconsideration and removal thereof are requested.

The Examiner has issued the rejection claiming that the application contains inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rules 13.1 and 13.2. Applicants submit that the Examiner has not properly construed or applied the unity of invention standard applicable under PCT Rules 13.1 and 13.2. The Examiner will note that no unity of invention objection was raised during the international phase of this application. Applicants submit that a similar finding of unity of invention should follow when the same rules are applied during the national phase of prosecution.

The Examiner argues that the inventions listed in Groups I-XIV do not relate to a single general inventive concept because

they lack the same or corresponding special technical feature. The Examiner has, therefore, separated the claims into two general categories. The first category contains Groups I, III, V, VII, IX, XI and XIII relates to a nucleic acid molecule encoding SEQ ID NO: 9 and the nucleic acid of SEQ ID NO: 8. The second category contains Groups I, II, VII, VIII and IX-XII and is directed to a nucleic acid molecule encoding SEQ ID NO: 14 and the nucleic acid of SEQ ID NO: 13. Applicant submits that the distinction made by the Examiner is erroneous.

As described in the Specification, the nucleotide sequences denoted SEQ ID NO: 8 and SEQ ID NO: 13 encode the very same protein. SEQ ID NO: 13 is simply the assembly of the coding regions identified in the genomic sequence. SEQ ID NO: 14 is the amino acid sequence derived from the coding regions of the exons of the genomic sequence (see page 3, lines 17-19 of the Specification. SEQ ID NO: 8 is the corresponding cDNA of the very same gene and SEQ ID NO: 9 is the protein encoded by this cDNA, which is the same protein as that encoded by the genomic sequence disclosed in SEQ ID NO: 13 (see page 3, lines 19-29). The MPEP states that nucleotide sequences encoding the same protein are not considered to be independent and distinct inventions and should be examined together (See MPEP 803.04). Applicant, therefore, submits that the claims of Groups I and II should examined together. Applicant further submits that Groups III-XIV, which have also been separated based on the distinction made between Groups I and II, should be similarly treated.

In view of the foregoing statements, Applicant would urge the Examiner to rejoin the claims of Groups I and II. It would be reasonable to search and examine the substance of these two groups concurrently as the areas to be searched are coextensive

and the Examiner would not be placed under an undue burden. If the Examiner disagrees with Applicant's provisional election, Applicant hereby elects to prosecute the claims of Group I (i.e. the cDNA denoted SEQ ID NO: 8) to fully comply with the Restriction Requirement.

Favorable action and early allowance of the claims are requested.

If the Examiner has any questions concerning this application, he is requested to contact Leonard Svensson (Reg. No.: 30,330) the undersigned at (714) 708-8555 in the Southern California area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By: _____
Leonard R. Svensson
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope to: Commissioner of Patents and Trademarks, Washington D.C. 20231 on: 6-3-02
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BIRCH, STEWART, KOLASCH & BIRCH, LLP

(Signature)

June 3, 2002
(Date of Signature)

PATENT
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Applicant: ROSENTHAL, A. et al. Conf.:

Appl. No.: 09/647,377 Group: 1632

Filed: September 27, 2000 Examiner: PRIEBE, S.

For: NUCLEIC ACID MOLECULES ENCODING PROTEINS WHICH INFLUENCE BONE DEVELOPMENT

SMALL ENTITY TRANSMITTAL FORM

Assistant Commissioner for Patents
Washington, DC 20231

June 3, 2002

Sir:

Transmitted herewith is a Restriction Requirement in the above-identified application.

☒ Applicant claims small entity status under 37 C.F.R. § 1.27.

☒ The enclosed document is being transmitted via the Certificate of Mailing provisions of 37 C.F.R. § 1.8.

☐ The enclosed document is being transmitted via facsimile.

The fee has been calculated as shown below:

	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA	RATE	ADDITIONAL FEE
TOTAL		-		=	0	$ 9	$0.00
INDEPENDENT		-		=	0	$ 42	$0.00
_____ FIRST PRESENTATION OF A MULTIPLE CLAIM						$140	$0.00
						TOTAL	$0.00

☐ Petition for ( ) month(s) extension of time pursuant to 37 C.F.R. §§ 1.17 and 1.136(a). $0.00 for the extension of time.

☒ No fee is required.

☐ Check(s) in the amount of $0.00 is(are) enclosed.

☐ Please charge Deposit Account No. 02-2448 in the amount of $0.00. This form is submitted in triplicate.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

BY _____
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0147-0211P

Attachment

(Rev. 09/27/01)

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope to: Commissioner of Patents and Trademarks, Washington D.C. 20231 on: 6-3-02
(Date of deposit)

BIRCH, STEWART, KOLASCH & BIRCH, LLP

(Signature)

June 3, 2002
(Date of Signature)